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A cross sectional study of fever surveillance among non-teaching Employees of medical university, Vadodara, Gujarat

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Abstract

Background: Rural area of Waghodiya has a favorable temperature and humidity to promote the life cycle of mosquitoes, which leads vector borne disease (mainly malaria, Dengue). Chikungunya and Japanese encephalitis is less common in Gujarat. Many fever cases were reported this year among the non- teaching employees of medical university, (Sumandeep Vidyapeeth) in Dhiraj Hospital, piparia. The present study was conducted to assess the incidence of fever, awareness and practices of mosquito born diseases and prevention methods.

Aims: To find out the prevalence of fever among non-teaching employees in focus of mosquito borne disease of medical university Sumandeep vidyapeeth, piparia, Vadodara, Gujarat.

Objective: To assess personal protection, preventive measures among non- teaching employees of medical university Sumandeep vidyapeeth.

To find out incidence of fever among study population.

Methodology: A cross sectional study was carried out in Medical University Sumandeep Vidyapeeth piparia, Vadodara. In the study200 persons who are non-teaching employees in Sumandeep Vidypeeth, interviewed with the help of pre-structured Performa by person to person visit. Researcher was obtained consent from of the respondent for collected data regarding the Past 3 months fever history, Knowledge, attitude and practice regarding mosquito born diseases, disease transmission, and elimination of causative factors.

Results: 42 % of respondents admitted that they or their family members suffered from fever in duration of august to October 2017 months, out of them 86% took treatment (74 % from Dhiraj hospital, 18% self-medication as well as home remedy and 8 % Cured without any medications). 4% an 2% cases diagnosed to have malaria and dengue respectively where as 10 % diagnosed to have viral fever, 84% respondent had not done any confirmatory test. Nearly 92 % of the participants reported correct breeding sites. The knowledge regarding preventive protective measures was 78% and they were using at least one of the preventive measure. The knowledge regarding Indoor residual spray was 82%.

Conclusion: Study revealed that cases of Malaria and Dengue was very less but there was incidence seen , thus timely and routinely survey, source reduction approaches and possible control methods need to be organized to avoid the future outbreaks. There is good knowledge about mosquito breeding sites and protection against mosquitoes had seen.

Key words: Malaria, Dengue, mosquito born diseases, Personal protective measures.

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Introduction

Fever, also known as pyrexia and febrile response [1], It is defined to have a temperature more than the normal range because of an increase in the body's temperature set-point [2]. A fever can be caused because of many medical conditions this includes viral, bacterial and parasitic infections such as the common cold, urinary tract infections, meningitis, malaria, Dengue and appendicitis these are in infectious category. Non-infectious category disease such as vasculitis, deep vein Thrombosis, side effects of medication, and cancer [3]. In this study parasitic infection specially the malarial, dengue and chikungunya cause of fever are focused.

Malaria is a mosquito-borne infectious disease affecting humans and other animals caused by parasitic protozoan's belonging to the Plasmodium and transmitted to man by certain species of infected female mosquito [4]. The clinical features varies mild to severe and complicated according to the species which infected and the individuals immunity status, degree of infection, malnutrition etc. the febrile condition occurred with definite intermittent periodicity repeat in every third or fourth day which depending upon the involved parasite's species.5 In case of Dengue is spread by several species of mosquito of the Aedes type, principally Aedes aegypti. 6which can infect human and cause disease, these infections may be asymptomatic or may lead to dengue fever, dengue hemorrhagic fever with or without shock, Dengue fever

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is a self-limiting disease. 7Many region of India are epidemic for particularly dengue fever Chikungunya, Japanese encephalitis and malaria almost on an annual basis causing considerable morbidity and mortality.8
Rural area of Waghodiya has a favorable temperature and humidity to promote the life cycle of mosquitoes, which leads vector borne disease(mainly malaria, Dengue). Chikungunya and Japanese encephalitis is less common in Gujarat. Many fever cases were reported this year among the employees of medical university,(sumandeep vidyapeeth) in Dhiraj Hospital, piparia. An Entomological and rapid survey was conducted by Department of PSM, SBKSMIRC to ascertain the cause of outbreak.

Objectives

- To find out incidence of fever among study population.
- Study the pettern of fever among study population.

Methodology

A cross sectional study was carried out in Medical University Sumandeep Vidyapeeth piparia,Vadodara. In the study 200 persons who are non-teaching employees in Sumandeep Vidypeeth, interviewed with the help of pre-structured Performa by person to person visit. Researcher was obtained consent from of the respondent for collected data regarding the Past 3 months (Aug-Oct. 2017) fever history ,Knowledge ,attitude and practice regarding mosquito born diseases, disease transmission, and elimination of causative factors.
Data was entered in Microsoft Excel Spreadsheet and analyzed by using EPI Info.
For continuous variables range, mean and standard deviation was calculated.
To know the association between dependent and independent variable chi-square was applied accordingly.

Observations

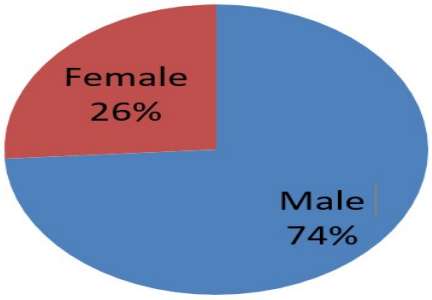

Fig. 1: Gender wise Distribution of selected Population

Figure shows Out of 200 participants there are 148 male and 52 are female.

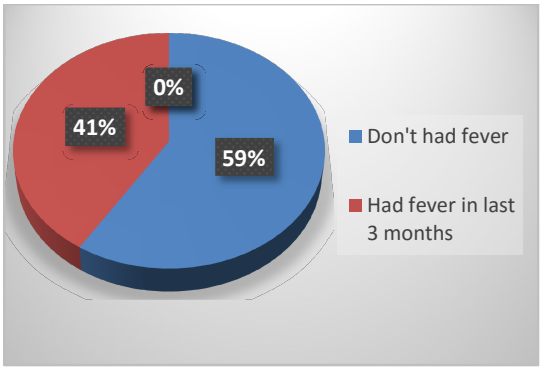

Fig. 2: Distribution according to history of fever.

Figure shows 41 %(82) participants had history of fever in their family in past 3 months(Aug.- Oct.2017)

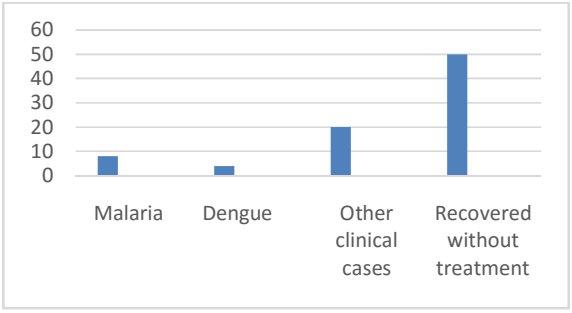

Fig. 3: Distribution according to Diagnosis and treatment

Figure shows Out of 82 fever cases 8 and 4 diagnosed To have Malaria and Dengue respectively, where as 20 fever cases with other clinical causes and 50 cases recovered without any Confirmatory diagnosis and treatment.
Nearly 92% of the participants reported correct breeding sites. The knowledge regarding preventive protectivemeasureswas78%andtheywereusingat least one of the preventive measure. The knowledge regarding Indoor residual spray was 82%.

Conclusion

Study revealed that cases of Malaria and Dengue was very less but there was incidence seen, thus timely and routinely survey, sourer education approaches and possible control methods need to be organized to avoid the future out breaks. There is good knowledge about mosquito breeding sites and protection against mosquitoes had seen.

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